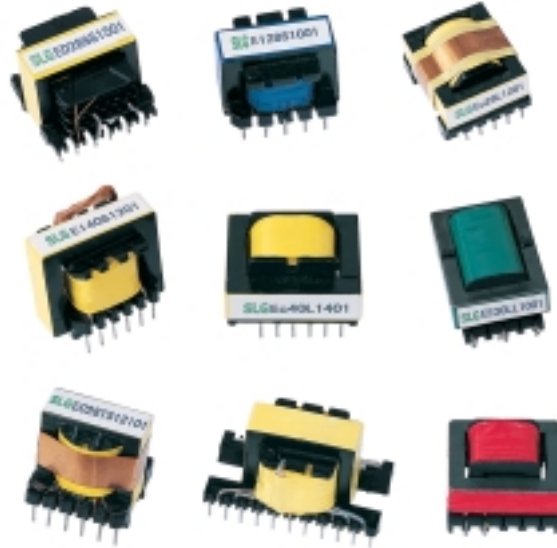


开关电源变压器

Switch Mode Power Transformers



特点

使用频率：25 — 500kHz

功率范围：10 — 500W

高效率、低漏感

散热好，电磁干扰小

磁芯：EE、EC、EI、EF、EER、ED、EFD、PQ、RM 等

磁芯材质：SP3、SP4、SP4A

安装方式：可按客户要求设计

Frequency

Operating Frequency: 25 — 500kHz

Range of Power: 10 — 500W

High efficiency, Low leakage inductance

easily dissipate heat, Lower EMI (Electromagnetic Interference)

Ferrite cores: EE、EC、EI、EF、EER、ED、EFD、PQ、RM and so on

Material: SP3、SP4、SP4A

Installation: Subject to customers' request

开关电源变压器

Switch mode power transformer

电磁特性 Electrical specifications @25			工作温度 Operating Temperature : -40 — 85		
编号 No.	工作频率 f Operating Frequency kHz	功率范围 Po Power Range W	初级电感 Lp Primary inductance mH	初级漏感 Lg Primary leakage inductance (All secondary short circuit) μH(全部次级短路)	效率η efficiency %
	20 — 100	50 — 500	0.5 — 10	<100	90
	50 — 200	20 — 230	0.5 — 10	<50	90
	100 — 500	10 — 100	0.5 — 5	<50	90

储能变压器（扼流圈 - - 变压器）*

Energy saving transformer (choke coils - transformer)

电磁特性 Electrical specifications @25			工作温度 Operating Temperature : -40 — 85			
编号 No.	工作频率 f Frequency kHz	功率范围 Po Power Range W	初级电感 Lp Primary inductance mH	初级漏感 Lg Primary leakage inductance (All secondary short circuit) μH(全部次级短路) 		

用 途

- 1、各类开关电源：DC-DC、AC-DC-AC、DC-AC、UPS 电源等
- 2、电路形式：单端正激、单端反激、推挽、半桥、全桥电路等
- 3、用于通讯、网络、计算机；医疗设备、OA 设备；电视、音响、空调等家用电器设备；各类电子仪器、航空航天设备等

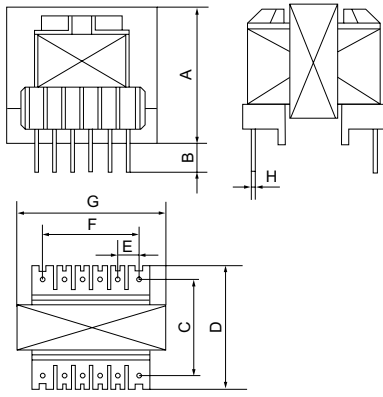
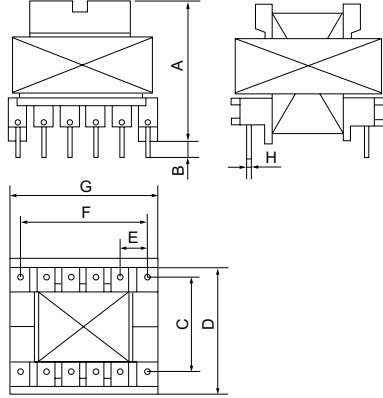
Application

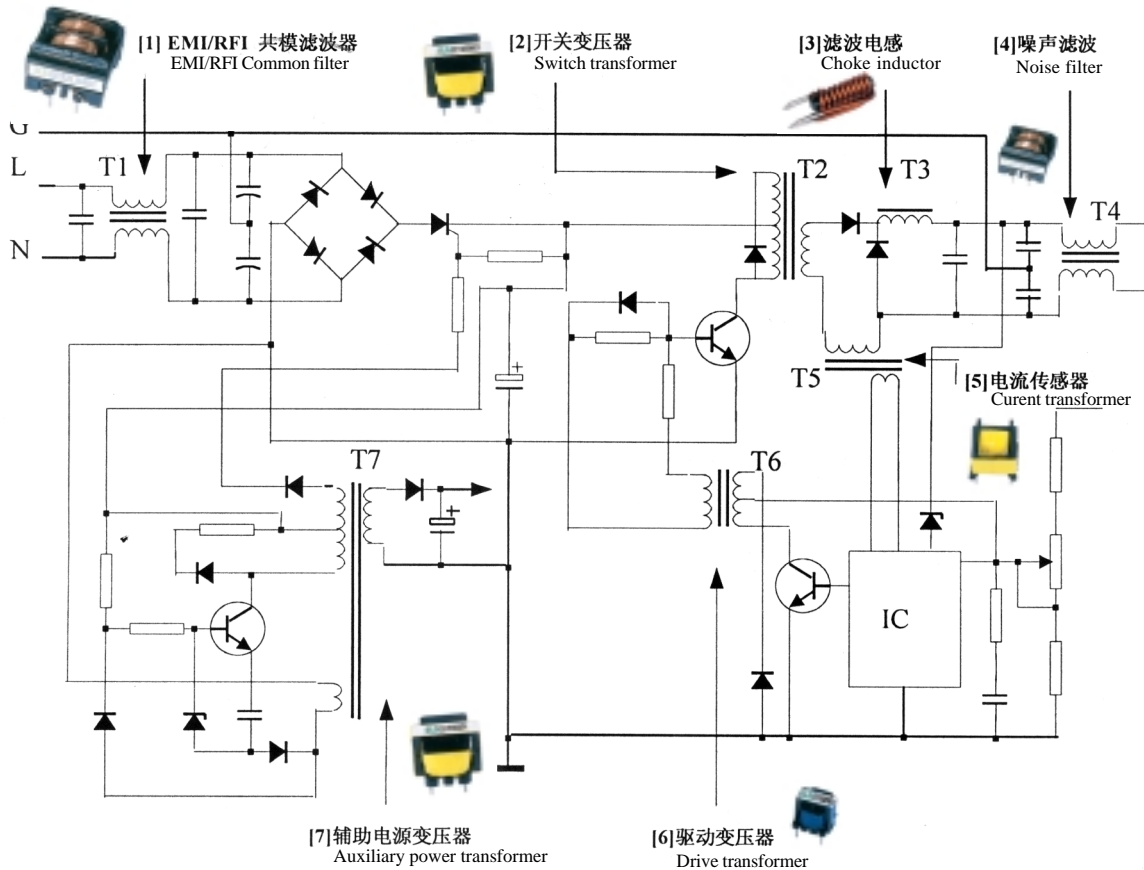
- 1、Kinds of switch mode power:DC-DC、AC-DC-AC、DC-AC、UPS etc.
- 2、Circuits:Single-terminal forward start、Single-terminal backward Start、Push-Pull、half-bridge circuit、entire-bridge circuit etc.
- 3、Applied in: Telecommunication system, internet system,compute system;Medical apparatus and instruments,OA equipment; TV set,acoustics air conditioner;all kinds of electronics instruments, aircraft equipment and so on.

参考规格 Specification

型号 Type	尺寸 Dimensions (mm)								外形图 Shape
	A (max)	B ± 1.0	C ± 3.0	D (max)	E ± 3.0	F ± 3.0	G (max)	H	
EER28L12	26.0	4.5	30.0	37.5	5.0	25.0	31.0	0.8	
EER40L12	35.0	5.0	35.0	46.0	5.0	35.0	42.0	1.0	
EER28TS17	34.0	5.0	20.0 25.0	31.0	5.0	20.0 25.0	31.0	0.8	
ED28S14	24.0	5.0	20.0	31.0	3.3 5.0	25.0 26.0	31.0	0.8	
ED28HS14	28.0	5.0	20.0	31.0	3.3 5.0	25.0 26.0	31.0	0.8	
EER28S12	36.0	5.0	17.5	24.0	5.0	20.0	30.0	0.8	
EER28HS12	32.5	4.0	17.5	24.0	5.0	25.0	30.0	0.8	
ED29S18	38.0	5.0	20.0	27.5	4.0	32.0	38.0	1.0	
EER35S14	43.0	4.0	22.5	28.5	5.0	30.0	36.5	1.0	
EER40S12	47.0	5.0	25.0	31.0	5.0	25.0	42.5	1.0	
EER40S14									
EER49S18	58.0	6.5	27.5	37.5	5.0	40.0	54.0	1.0	

参考规格 *Specification*

型号 Type	尺寸 Dimensions (mm)								外形图 Shape
	A (max)	B ± 1.0	C ± 3.0	D (max)	E ± 3.0	F ± 3.0	G (max)	H	
E128S10	23.0	5.0	17.5	23.5	5.0	20.0	29.5	0.8	
E130S10	28.5	4.0	17.5	23.0	5.0	20.0	32.0	0.8	
E133S12	31.0	5.0	22.5	29.0	5.0	25.0	34.0	0.8	
E135S14	33.0	6.0	20.0	27.5	5.0	27.5	35.5	0.8	
E140S12	37.0	5.0	22.5	29.0	5.0	25.0	41.0	0.8	
EE25L12	23.5	4.0	15.5	23.5	5.0	25.0	26.5	0.8	
EE30L10	20.5	4.0	21.0	39.0	5.0	20.0	31.5	0.8	
EE30LL10P	20.5	5.0	44.0	55.0	5.0	20.0	30.5	0.8	
E140L14	28.0	5.0	25.0	36.5	5.0	30.0	41.5	0.8	
EE42L10	43.5	5.0	35.0	45.0	5.0	20.0	43.5	1.0	
EE54L14	52.0	6.5	40.0	56.0	5.0	30.0	57.0	1.0	

典型应用 *Typical Application*

说明

所有变压器、滤波器都在高磁场情况下应用，T1、T3、T4 中存在直流磁场；
 T7、T2 上是方波，当方波不对称电流也会有直流分量；
 T5、T6 主要是交流分量，直流分量较小；
 当开关电流较高时，T1、T3、T4 可用铁粉磁芯。

Note

Every transformer and filter and applied in high magnetics field, and DC-magnetic field exists in T1,T3,T4
 Square wave in T1,T2,there is a little DC,when it is not symmetry
 T5,T6,is mainly AC current with a little DC current.
 When switch current is higher,iron powder core might be applied in T1,T3,T4.

绿色照明工程配套器件

Electronic parts for Green Illumination Project



特点

工作频率: 20--100kHz(160kHz)
 功率范围: 3---11W、11---20W、20---40W、70---250W
 高效率、低漏感
 散热好, 电磁干扰小
 磁芯: EE、EC、EI、UF、EER、EP、EFD、ET、T 等
 磁芯材质: MnZn 功率铁氧体材料: SP3、SP4
 MnZn 高导磁率铁氧体材料: SL5、SL7、SL10 ;
 NiZn 材料: SN50、SN80、SN100
 铁粉芯材料: SM-7
 安装方式: 可按客户要求设计

Features:

Operating Frequevey: 20—100kHz (160kHz)
 Power range: 3---11W、11---20W、20---40W、70---250W
 High efficiency, Low leakage inductance
 Easily dissipate heat, lower EMI
 Ferrite core: EE、EC、EI、UF、EER、EP、EFD、ET、T etc.
 Material: MnZn power ferrite Material: SP3、SP4 ; MnZn high permeability ferrite material:
 SL5、SL7、SL10 ; NiZn material: SN50、SN80、SN100 ; Iron powder material: SM-7
 Installation: Subject to customers' request

变压器(用于推挽电路) Transformer

电磁特性 Electrical specifications @25			工作温度 Operating Temperature : -40 — 105		
编号 No.	工作频率 f Operating Frequency kHz	功率范围 Po Power Range W	初级电感 Lp Primary inductance mH	初级漏感 Lg Primary leakage inductance (All secondary short circuit) μH (全部次级短路)	效率 η efficiency %
	20 — 160	5 — 250	0.5 — 10	<100	90

谐振电感 Resonance Inductance

电磁特性 Electrical specifications @25			工作温度 Temperature : -40 — 105	
编号 No.	工作频率 f Operating Frequency kHz	电感 L Resonance inductance mH	气隙公差 gap to lernance μm	
	20 — 160	0.2 — 7.0	< ± 10	

脉冲反馈变压器

Pulse feedback transformer



脉冲反馈变压器

Pulse feed back transformer

电磁特性 Electrical specifications @25		工作温度 Operating Temperature : -40 ---105		
编号 No.	工作频率 f Operating Frequency kHz	单匝电感 L Single inductance μH	磁芯 Core	磁芯材质 Material
	20 — 160	2.6 — 3.6	6 × 3 × 4	SL5/SL7
	20 — 160	2.1 — 3.0	7 × 4 × 4	SL5/SL7
	20 — 160	1.7 — 2.4	9 × 5 × 3	SL5/SL7
	20 — 160	2.5 — 3.5	10 × 6 × 5	SL5/SL7
	20 — 160	2.6 — 3.7	12 × 6 × 4	SL5/SL7
	20 — 160	1.2 — 1.5	12 × 6 × 4	SP3*

* 经济型

* Economical Type

用途

紧凑型荧光灯电子镇流器

荧光灯电子镇流器

高压钠灯电子镇流器

低压 DC-AC 逆变器

冷光灯变压器

有源功率因数校正器 (APFC) 等

Application

Compact save energy fluorescent lamp ballast

Fluorescent electro-ballast

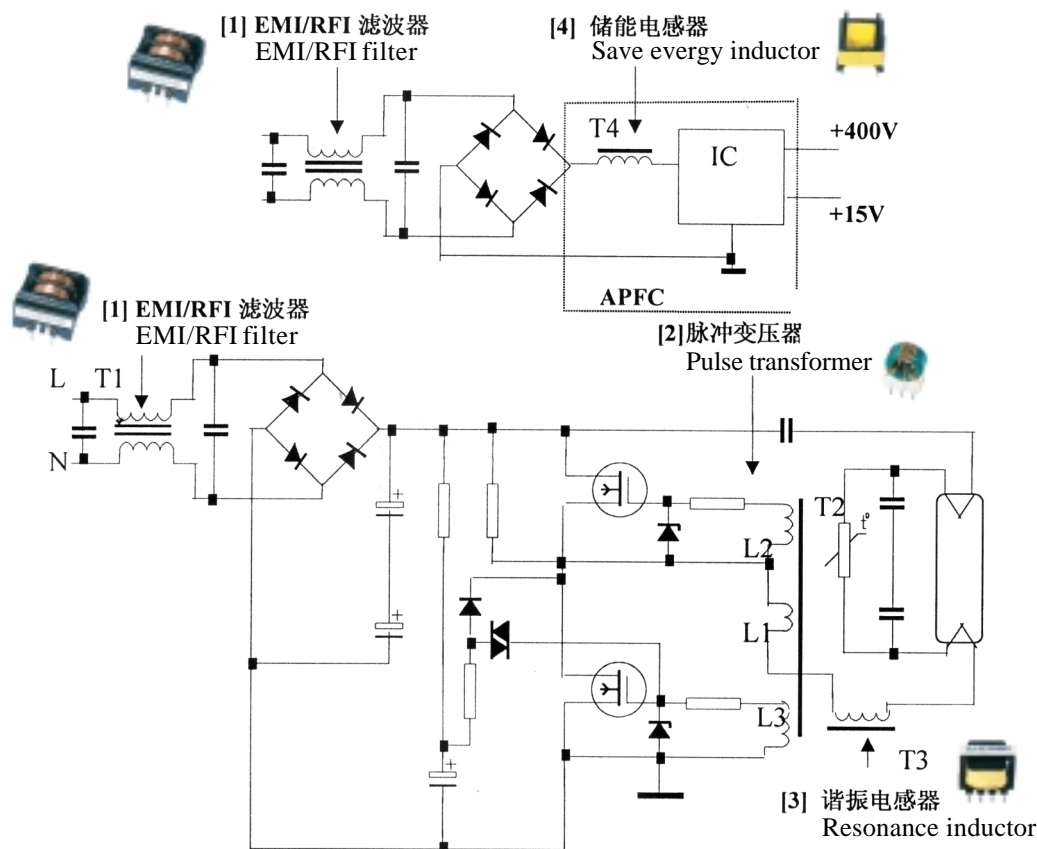
High pressure Na electro-ballast

Low pressure DC-AC converter

Cold light transformer

APFC, etc.

典型应用 Typical Application



说明

以往人们注意开关管特性和电容器性能对电子镇流器质量的影响，这样导致了后来开发专用开关管和电容器。在 EB 中，作为非线性元件的磁芯器件长期以来不被人们所重视。直到 90 年代中期，人们才逐渐认识到磁芯器件对 EB 质量的影响，事实上磁芯器件对提高 EB 可靠性有着重要意义。

本公司同时可提供适合于“绿色照明工程”配套器件用磁芯。广泛用于驱动变压器、谐振电感器、APFC、EMI/RFI 等。

Note

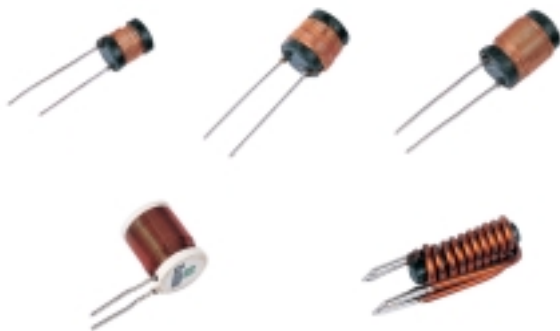
In the past, scientists only notice the effect of switch tube and capacitor on electro-ballast, which lead to research and produce special switch tube and capacitor.

In EB, non-linear magnetic component always was not emphasized for a long time, until middle of 1990's, more and more scientists began to realize the application of magnetic component, which can improve EB reliability well.

Our company can offer many magnetic materials for “Green Lighting” campaign, which widely applied in drive transformer, resonance inductor, APFC, EMI/RFI, etc.

扼流圈

Choke Coils



特 点

体积小、温升低
大偏流下工作稳定
立式、卧式适于不同的安装空间
双重磁芯固定
厌氧胶与浸漆固定
厌氧胶与环氧树脂固定

Frequency

Compact, low temperature rise
Work steadily in big bias current
Vertical and horizontal choke coils applied in the different installation space.
Double cores fixed
Fixed with anaerobic glue and paint
Fixed with anaerobic glue and epoxy resin

参考规格 Specification

型号 Type	尺寸 Dimensions (mm)					电感量 ($\pm 10\text{mH}$), @1KHz	外形图 Shape
	A (max)	B (max)	C ± 0.5	G (max)	H ± 0.05		
DR6x8.3S0201	8.6	20.0	3.0	6.3	0.6	1.3	
DR8x9S0201	9.4	20.0	4.0	8.3	0.7	0.005	
DR8x10S0202	10.4	20.0	4.0	8.3	0.7	1.0	
DR10x12S0201	12.5	25.0	5.0	11.2	0.8	0.1	
DR10x12S0202	12.5	25.0	5.0	11.2	0.8	2.5	
DR10x12S0203	12.5	25.0	5.0	11.2	0.8	3.0	
DR10x12S0204	12.5	25.0	5.0	11.2	0.8	4.0	
DR10x12S0205	12.5	25.0	5.0	11.2	0.8	5.0	
DR10x16S0201	16.5	25.0	5.0	11.5	0.8	2.0	
DR10x16S0202	16.5	25.0	5.0	11.5	0.8	2.5	
DR10x16S0203	16.5	25.0	5.0	11.5	0.8	3.0	
DR10x16S204	16.5	25.0	5.0	11.5	0.8	6.0	
DR14x15S0210	15.5	25.0	6.0	14.5	0.8	4.5	
R3x10L0201	15.5	16.0	5.0	13.0	0.8	1.6	
R6x20S0201	25.0	4.5	9.5	15.5	0.8	2.5	

参考规格 Specification



特点

稳定可靠、低损耗
立式、卧式两种安装方式

Features

High stability & reliability, low loss
Vertical and horizontal installations
can be applied

型号 Type	尺寸 Dimensions (mm)								外形图 Shape
	A (max)	B ±1.0	C ±3.0	D (max)	E ±3.0	F ±3.0	G (max)	H ±0.05	
E8S0801	8.5	3.5	6.0	8.5	2.5	5.0	9.0	0.4	
E10S0801	11.0	4.0	8.0	10.5	2.5	8.0	11.0	0.5	
E13S0801	13.5	4.5	8.5	13.0	5.0	10.0	13.5	0.6	
E16S0601	16.0	5.0	9.0	13.5		6.0	16.5	0.6	
E16S0611	16.5	4.0	9.0	12.0	3.0	12.5	16.5	0.6	
E19S0601	17.0	5.0	11.0	16.0	5.0	10.0	20.0	0.8	
E19S0601	17.0	4.0	11.0	16.0	4.0	12.0	20.0	0.8	
E20S0601	22.0	5.0	12.0	17.0	5.0	10.0	21.5	0.8	
E122S1001	20.0	4.5	10.0	16.5	4.0	15.5	22.5	0.7	
E25S0801	23.0	5.0	12.5	18.5	5.0	15.0	26.0	0.8	
EE25S0601	22.0	5.0	12.5	19.0	5.0	10.0	26.0	0.8	
E128S1001	23.0	5.0	17.5	23.5	5.0	20.0	29.5	0.8	
E130S1001	28.5	4.0	17.5	23.0	5.0	20.0	32.0	0.8	
EE13L1001	12.0	4.0	10.0	13.5	2.5	7.5	13.5	0.6	
E16L0401	11.5	4.5	13.0	16.5	3.8	7.6	16.0	0.6	
EE19L0401	19.0	4.0	12.75	18.0	3.8	11.4	20.0	0.8	

共模滤波器

Common-Mode Choke



特点

工作频率：0.1-20MHz

采用高导磁率 MnZn 铁氧体材料，
对噪声具有高的阻抗

磁芯：UF、EE、FT、ET、T

Features

Operating Frequency: 0.1-20MHz

Use high permeability MnZn ferrite, on noise with High impedance

Cores: UF、EE、FT、ET、T

共模滤波器（电源噪声滤波器）

Common Mode filter (power noise filter)

电磁特性 Electrical specifications @25			工作温度 Temperature : -40 ---85	
编号 No.	工作频率 f Frequency kHz	电感 L Resonance inductance mH	偏流 I _{DC} A	
	0.1 — 20	0.1 — 40	< 3	
	0.1 — 20	0.1 — 20	< 6	
	0.1 — 20	0.1 — 10	< 10	
	0.1 — 20	0.05 — 1.0	< 20*	

* 使用铁粉磁芯 SM — 7

* iron-power core

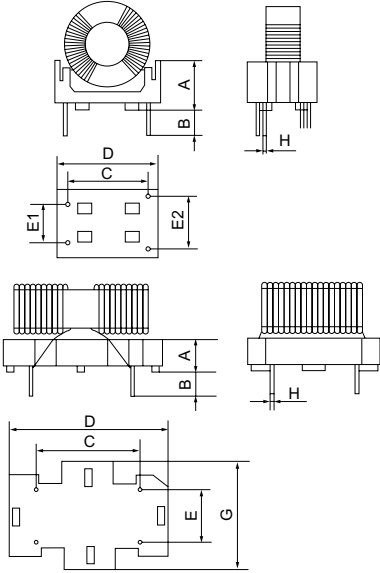
用途

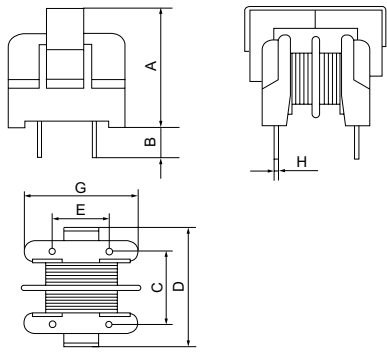
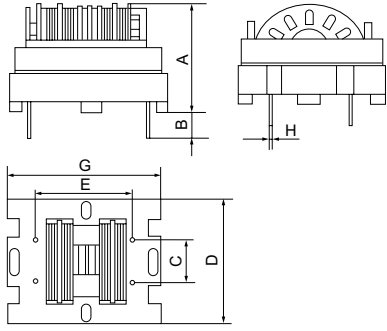
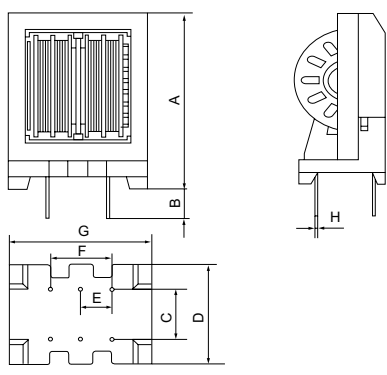
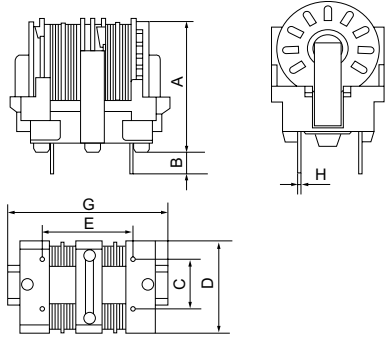
用于通讯、网络、计算机；工业、科学和医疗设备、O A 设备；
电视、音响、空调等家用电子设备；
各类电子仪器、航空航天设备等

Application

Applied in: Communication system, internet system,compute system;
Medical apparatus and instruments,OA equipment; TV; acoustics; air conditioner;
all Kinds of electronics instruments, aircraft equipment and so on.

参考规格 Specification

型号 Type	尺寸 Dimensions (mm)							外形图 Shape
	A (max)	B ±1.0	C ±3.0	D (max)	E ±3.0	F ±3.0	H ±0.05	
磁芯型号可 参PX	4.0	4.0	3.0	6.5	6.0	9.5	0.7	
	5.0	4.5	7.0	9.5	7.0	9.5	0.6	
	6.5	3.8	5.0	13.0	6.5 9.0	13.0	0.6	
	6.8	3.8	17.8	21.0	9.5	12.5	0.8	
	10.5	7.5	13.0	20.0	10.0	18.0	0.8	

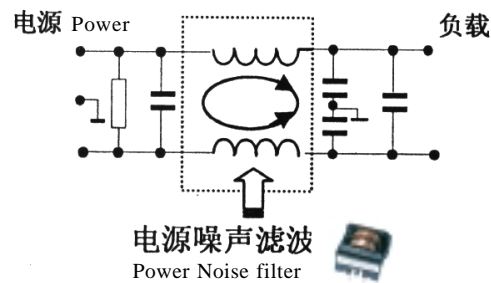
型号 Type	尺寸 Dimensions (mm)							外形图 Shape
	A (max)	B ± 1.0	C ± 3.0	D (max)	E ± 3.0	G (max)	H ± 0.05	
UF9.8S0401	16.5	4.0	7.0	15.5	8.0	17.0	0.6	
UF10.5S0401	21.0	4.0	13.0	17.0	10.0	16.0	0.7	
UF16S0401	28.0	4.0	13.0	23.0	10.0	19.0	0.7	
UF20S0401								
ET24L4	21.0	4.0	15.0	25.0	21.0	25.0	0.8	
ET28L4	25.0	4.0	20.0	29.0	24.0	29.0	0.8	
ET35L4	29.0	4.0	25.0	36.0	30.0	36.0	1.0	
ET24S4	31.0	4.0	10.0	25.0	13.0	25.0	0.8	
ET28S4	36.0	4.0	10.0	29.0	13.0	29.0	0.8	
ET35S4	45.0	4.0	15.0	36.0	21.0	36.0	1.0	
FT20L4	23.0	4.0	10.0	21.0	13.0	21.0	0.8	

典型应用 *Typical Application*

共模 (CM) 差模 (DM) 滤波器

CM and DM filter

1、电原理图 Principle circuit power



2、一般特性举例

工作频率：50/60Hz

额定电流：6A

高压试验 (1 分钟)

电源线—地：2500V_{DC}

电源—电源：1450V_{DC}

2、For example:

Operating Frequency: 50/60Hz

Rated current: 6A

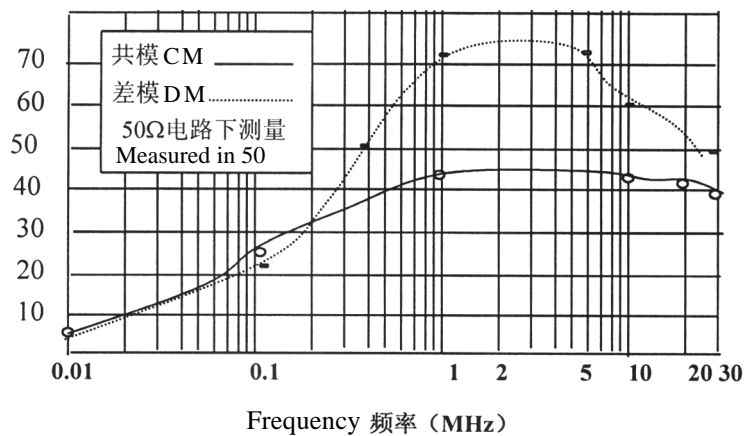
High pressure try (one minute)

power line—grand: 2500V_{DC}

power—power: 1450V_{DC}

3. 频率特性 Frequency characteristics

插入损耗 (dB) plug loss (dB)



通讯、计算机、网络用变压器和电感器

Lucent xDSL Transformers & Inductors



规格、特点

全部变压器通过 UL / CSA 安全认证

满足 T1.413 插入损耗、谐波失真和频率响应要求

工作温度范围：-40 — 85

提供直插式和表面安装两种封装形式

可为用户提供按北美和欧洲标准设计

Specification and Feature

All transformers have been certified by UL/CSA

Operating temperature range: -40 — 85

Package ways: straihgt type, SMD Seal

Follow North American and European standand

隔离变压器

SL2718、LS2776、LS2805、SL2808、SL2810、SL2812 等系列
(变压器、用于信号隔离)

Isolation transformer

SL2718、LS2776、LS2805、SL2808、SL2810、SL2812 series, etc,
(transformer,signal isolation)

滤波电感器


SL1796A、SL1796B、SL1797A 等系列 (差模扼流圈、用于低通滤波)

Filter inductor

SL1796A、SL1796B、SL1797A series, etc, (DM choke coil、applied in low pass.)

共模滤波器

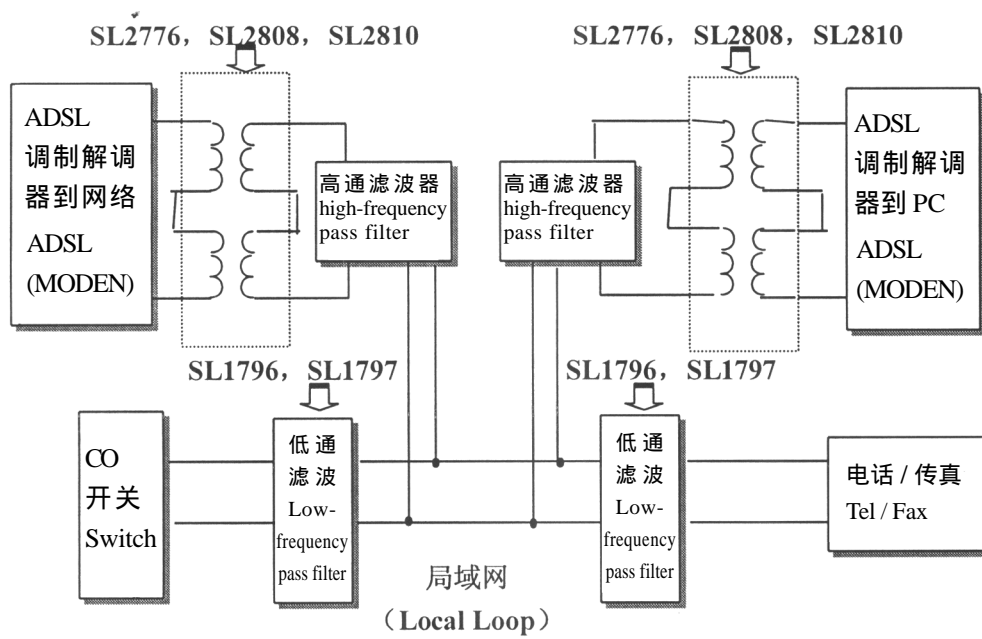
CM filter

电磁特性 Electrical specifications @25				工作温度 Operating Temperature : -40 ---85
编号 No.	电感 mH(min) Resonance inductance	额定电流(A) Rated Current	直流电阻 (min) DC resistance	说明 Note
SL10100	0.6	2.5	0.11	· 额定电压 : Rated Uotag : 250V,50/60Hz · 介电强度 : Resistanse Strength : 绕组对绕组 : 3kv welding coil to welding coil : · 绝缘电阻 : Insulation resistance : > 100M /500V _{DC} · 外形 : Shape : 
SL10150	1.0	2.0	0.16	
SL10200	2.0	1.7	0.24	
SL10250	2.5	1.5	0.25	
SL10300	3.0	1.3	0.30	
SL10350	4.0	1.2	0.40	
SL10400	5.0	1.0	0.50	
SL10500	6.0	0.8	0.70	
SL10600	10.0	0.6	1.20	
SL10700	15.0	0.5	1.70	
SL10800	20.0	0.4	2.40	
SL10900	40.0	0.3	3.90	

通信变压器 (用于调制解调器, 速率 56kbps)

XDSL Transfomen(Applied in ISDN,speed 56kbps)

电磁特性 Electrical specifications @25					工作温度 Operating Temperature : -40 ---85				
编号 No.	阻抗 Current resistance		电阻 Resistance		mA _{DC} 不平衡 Impedence	频率响应dB Frequently response	插损dB Insertion loss	反射损耗dB Reflection attenuation	介电测试 Vrms Resistance test
	初级 Primary	次级 Secondary	初级 Primary	次级 Secondary					
SL1256	600	900	60	90	80	± 0.3 0.3-3.4kHz	1.0	2.5	1500
SL19235	600	900	60	70	80	± 2.0 0.5-3kHz	2.2	8.5	1250
SL19205	600	600	35	35		± 0.5 0.3-5kHz	1.2	22	1250
SL19066	600	600	65	105	60	± 0.5 0.6-3.5kHz	1.8	17	1250
SL19232	600	560	52	52		± 0.5 0.3-4kHz	1.1	22	3000
SL1924	600	530	35	45		± 0.2 0.3-3.4kHz	0.8	25	1500
SL19159	600	470	110	115	60	± 1.5 0.3-3.5kHz	2.0	12	1250
SL25245	600	374	108	120		± 0.15 0.3-3.5kHz	2.0	30	1250
SL19237	600	374	100	130		± 0.15 0.2-4kHz	2.3	25	1250
SL25250	600	301	150	150		± 0.25 0.2-4kHz	3.0	30	1250

典型应用 *Typical Application*

电源变压器

Power Transformers



特点

AC120V/60Hz, AC220/50Hz

UL、CCEE 标准认证

功率范围：0.1-500W

铁芯尺寸：E128-E176

安装方式：立式、卧式、夹框

端接方式：插针、焊片、引线 and 铆钉等方式

Features

AC120V/60Hz, AC220/50Hz

UL、CCEE standard certificated

Power range: 0.1-500W

Core dimension: E128-E176

Installation: Vertical, Horizontal and clamp-on

Connection: plug injection, weld flat, fuse, rivet

用途

收音机、电视机、录像机、空调、VCD 等家用电器；

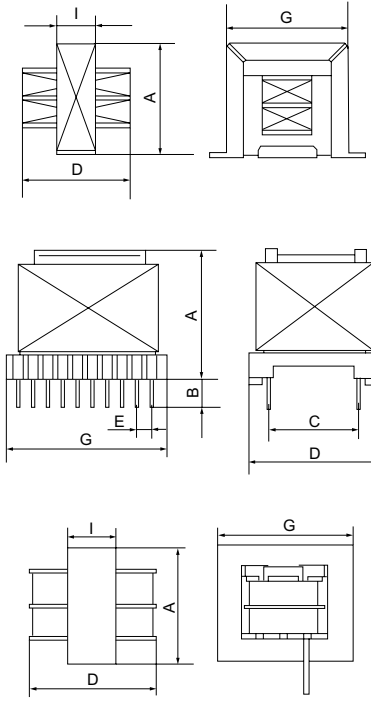
电话机、手机、程控交换机等通信设备

Application

Radio, TVset, Video, recorder, air conditioner, VCD, etc.

Telephone, Mobile, telephone exchange (PABX), etc, coarverter and so on

参考规格 *Specification*

型号 Type	尺寸 Dimensions (mm)							外形图 Shape
	A (max)	B ± 1.0	C ± 3.0	D (max)	E ± 3.0	F ± 3.0	G (max)	
E135	32			28		38	10.5	
E135	29.5	5.0	22.5	32.5	5.0	36.5	1.0	
E141	43.5	5.0	35.0	42	6.0	44	20	
E141	37.5			44		44	18	
E148	38	7.0	25.5	41.5	5.0	5.0	1.2	
E148	42			50.5		46	16.5	
E157	62	5.0	37.5	50.5	5.0	60	35	
E157	65.5	5.0	37.5	50.5	5.0	60	38	
E166	61			69		60	32	
E166	49	5.0	42.5	57	5.0	69	22	
E166	70			58		57	32	
E128S1001	70			90		80	44	